



# Bridge-In-a-Box for the M.D. of Smoky River, AB

<b>OWNER</b>	Municipal District of Smoky River No. 130
<b>CONTRACTOR</b>	Griffin Contracting Ltd.
<b>CONSULTANT</b>	MPA Engineering Ltd.
<b>LOCATION</b>	Falher, AB

A section of road regularly impacted by spring flooding in the Municipal District of Smoky River, Alberta required a road grade elevation and new bridge crossing. Several options were investigated and Armtec's Bridge-In-a-Box proved to be the most cost-effective option for this low volume road.

## The Challenge

Approximately 10 kilometers southwest of Falher, Alberta spring flooding of a nearby stream had taken its toll on the surrounding roadway. In order to accommodate the higher water levels, the elevation of the crossing was raised. The existing structure was at the end of its service life and unsuitable to reuse. The County required a replacement bridge solution. As a low volume road, budget constraints demanded an economical option to Alberta Transportation's standard low volume bridge.



## TECHNICAL DETAILS

Armtec **Bridge-In-a-Box**  
18.3 m (60 ft) span x 8 m  
(26 ft - 3 in) wide double-lane  
bridge

**The Solution:**

Several bridge designs were considered by the consultants MPA Engineering Ltd. including Armtec's Bridge-In-a-Box, an engineered, pre-fabricated modular steel bridge system. Armtec supplied a preliminary design for the bridge structure and pricing, with the abutment and global designed by MPA. The proposed 18.3 m span and 8 m wide bridge supports highway live loads according to industry standards for low-volume roads and the Canadian Highway Bridge Design Code (CHBDC). Armtec's product support and partnership with the Contractor led to a competitive installation price, further improving project economics for the Owner.

Installation was scheduled for May 16 2019. The three modular bridge pieces arrived mid-morning and by 1:00 p.m. in the afternoon, assembly of the superstructure was complete. The contractor was impressed at the ease of assembly:

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“In my 35+ years of working on bridges, I was completely amazed at how quickly this “Bridge-In-a-Box” was installed and how everything lined up to perfection. I would highly recommend this product to other MD's”.

Greg Griffin, Griffin Contracting Ltd.

The quick installation minimized inconvenience to local road users and the open span design optimized hydraulics, and reduced impact on the stream environment. A Thrie Beam guardrail system, suitable for low volume roads, completed the design. The bridge was officially open to the public on July 5, 2019 and was the first Bridge-In-a-Box installation in Alberta.



**Find out how Bridge-In-a-Box can be used on your next project.  
Contact us today!**



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